



U.S. Department of Energy
**Energy Efficiency
and Renewable Energy**

Bringing you a prosperous future where energy
is clean, abundant, reliable, and affordable

Federal Energy Management Program

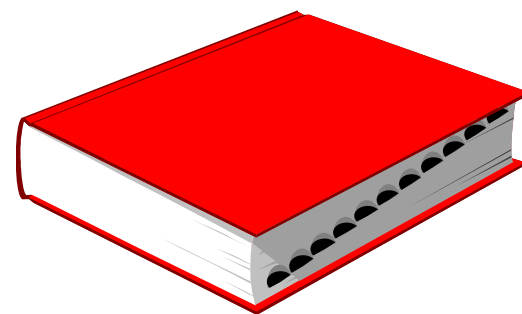
Super ESPC

Energy Savings Performance Contracting



Definition of ESPC

- **ESPC** is a no-upfront-cost contracting method. The contractor incurs the cost of implementing energy conservation measures (ECM) and is paid from the energy, water, wastewater and operations savings resulting from these ECMs.





Why do an ESPC?

- Meet energy reduction and environmental goals
 - Affirm agency commitment to these goals
- Improve facilities: comfort and reliability
- Provide critical facility data
- Save taxpayer money
- Faster process
- Better quality
- Interoperability
- Good for community relations
- Fixed price contracts—no change orders
- Avoid cost of delay and inaction
- Fast construction
- Avoid deferred maintenance



More on: Why do an ESPC?

- ESCO has incentive to find all ECMs
- ESCO has incentive to provide high quality equipment that will perform long after installation
- ESCO has incentive to do all punch list items timely
- ESCO has incentive to commission well



ESPC Background

- **1992 ESPC legislation enacted**
- **1995 DOE promulgates ESPC regs**
- **1998 DOE streamlines process: Super ESPC**
- **2005 ESPC reauthorized thru FY 2016**
- **20 Dec 2007 permanent authorization and amendments**



Energy Independence & Security Act

Effective date: 20 December 2007

- Permanent
- Financing Flexibility
 - “...may use any combination of appropriated funds and private financing...”
- Repealed Congressional Notification
- Prohibits agency-wide policy limiting contract term (statute allows 25 years) or investment amount
- Allows sale of electricity off site



New Goals Set By E.O. 13423 (2007)

- Reduce federal facility energy use per square foot by 3% per year, 2006 – 2015, relative to 2003 (30% by end of 2015)
- Increase use of renewable energy to
 - not less than 3% of total electricity use in 2007 – 2009
 - not less than 5% in 2010 – 2012
 - not less than 7.5% in 2013 and thereafter
 - At least half from new sources each year
 - Implement renewables on agency property for agency use as feasible
- Reduce water use by 2% per year, 2008 – 2015 (16% by end of 2015)



EO 13423 Instructions

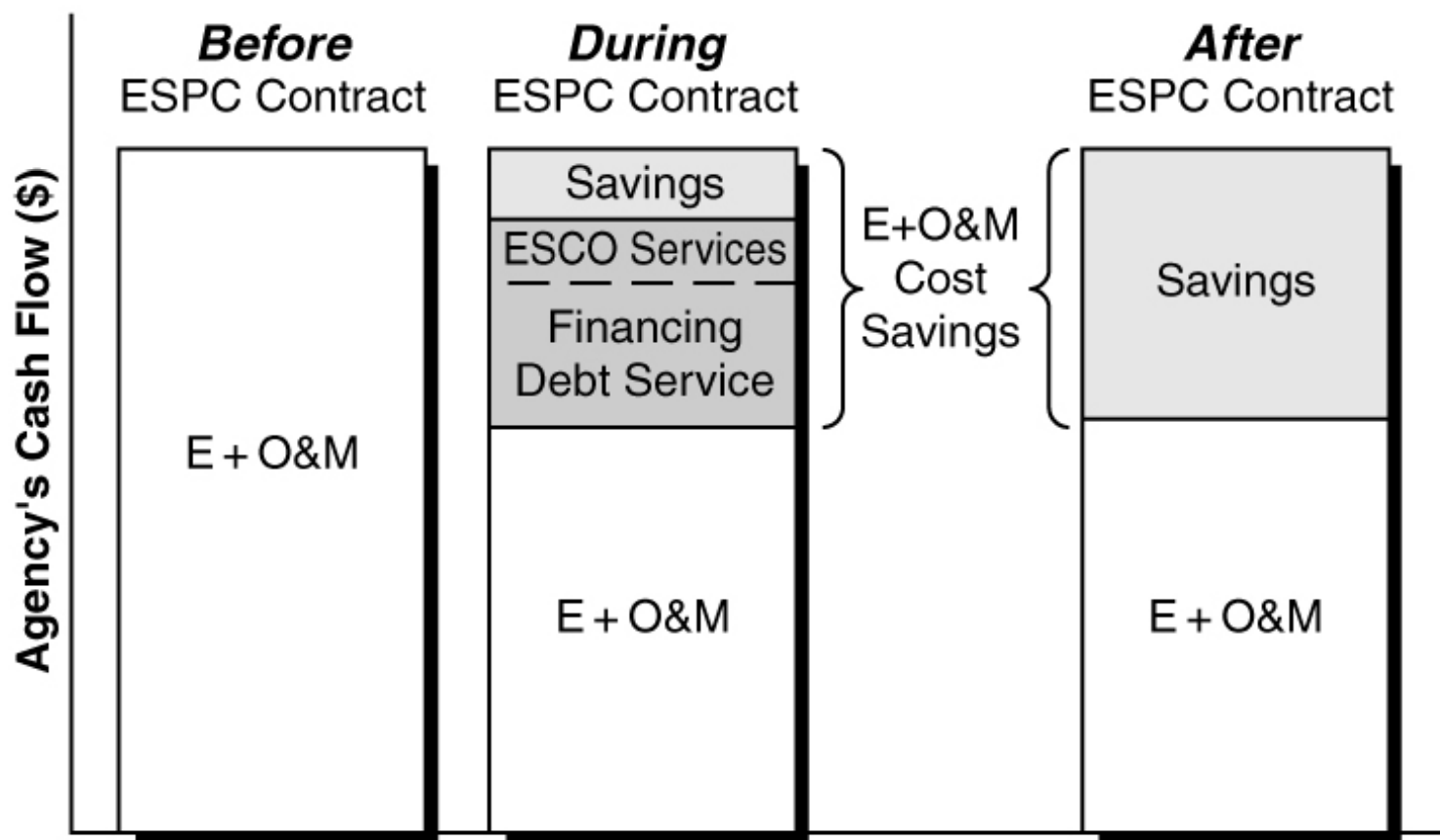
- *“Appropriations should be requested in annual budget requests and prioritized for application in projects or measures that do not generate savings sufficient to support private sector financing or for application as cost share to ESPCs/UESCs so that larger, more comprehensive projects can be undertaken.”*

In other words: exhaust private financing opportunities before using scarce appropriated funds; reserve appropriated funds for things that don't self-fund.



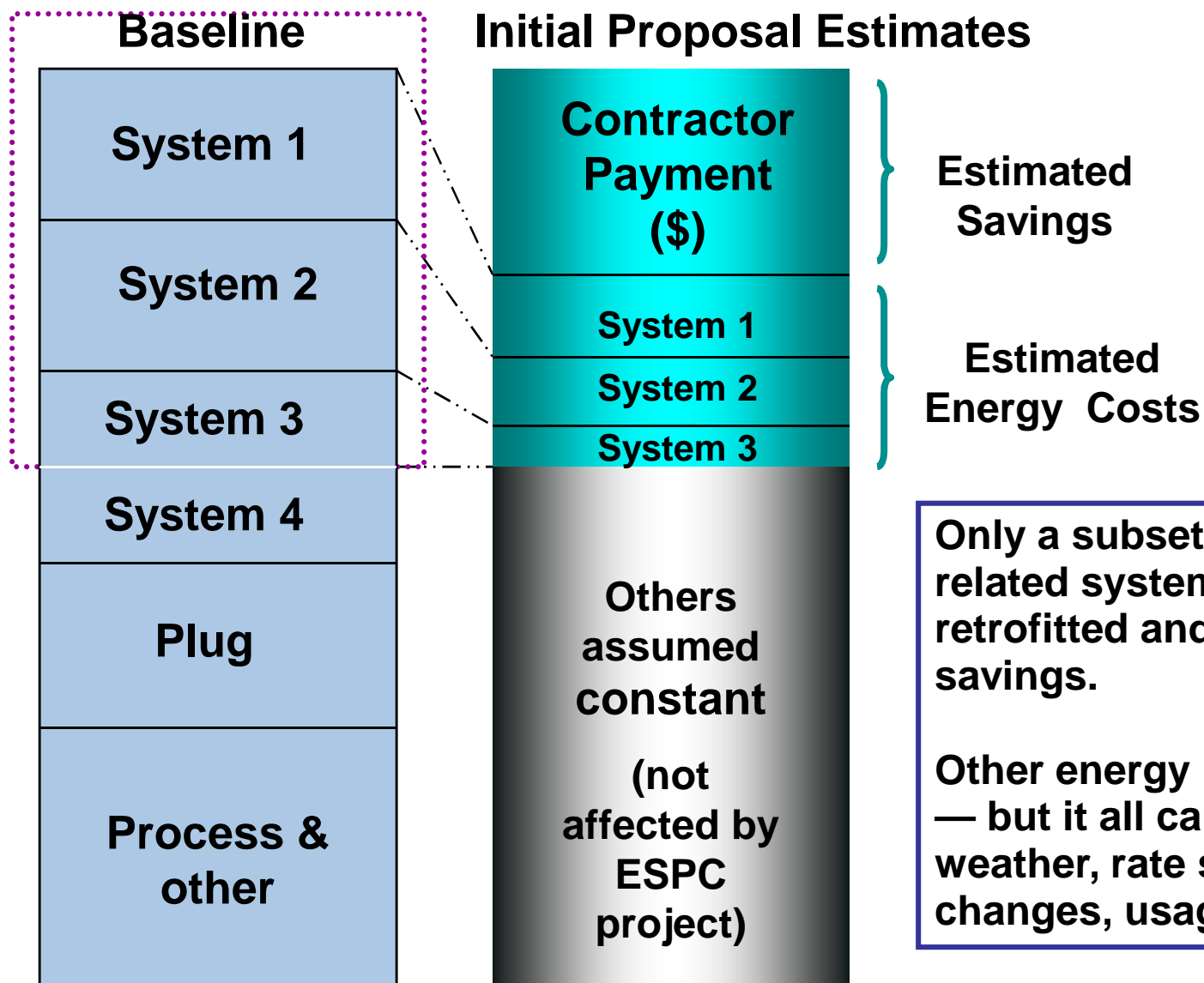
Reallocate the Government's Utility Bill

- ✓ Pay a lower utility bill
- ✓ Pay the contractor
- ✓ Achieve cost savings for the government



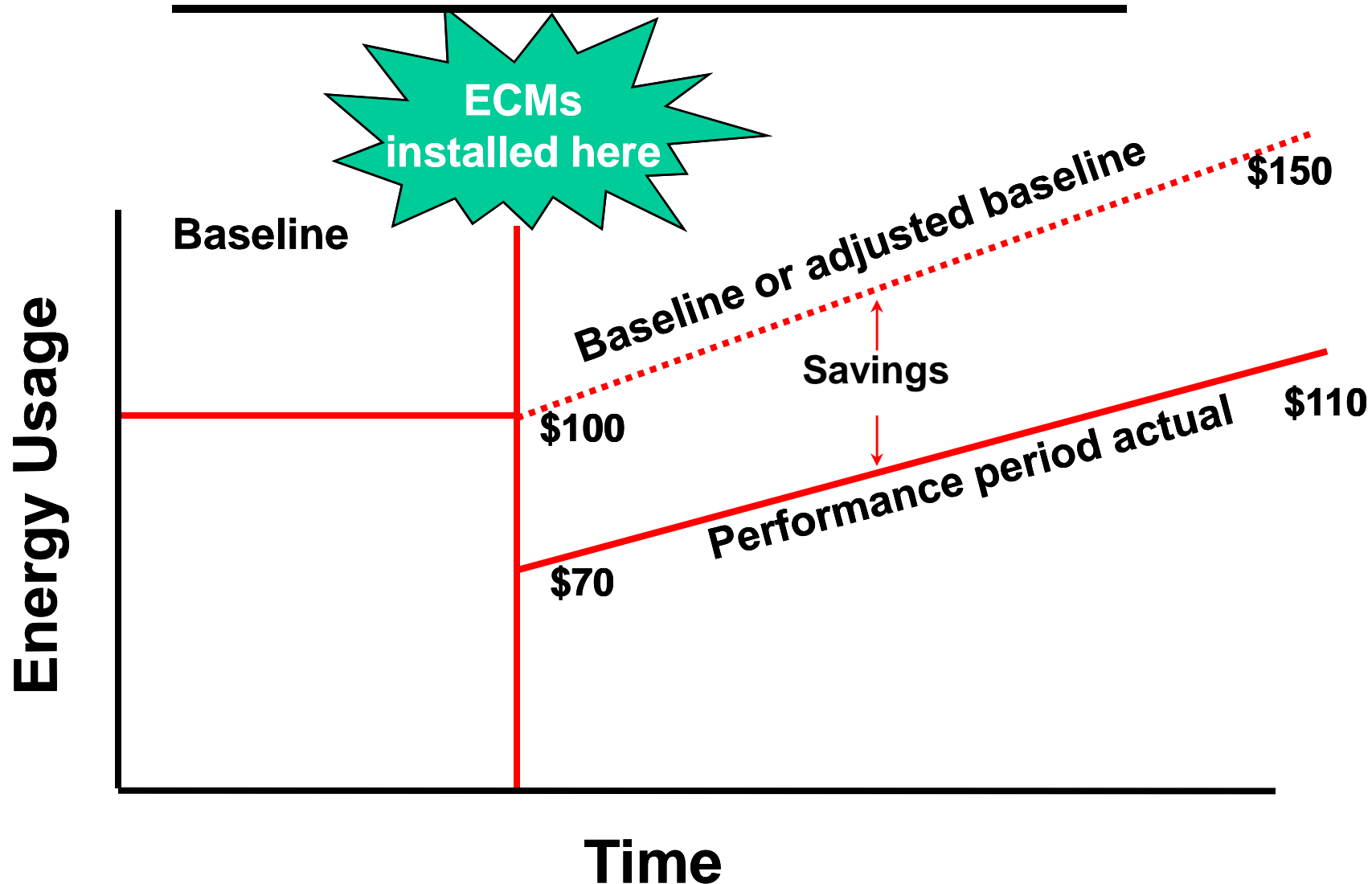


Initial Proposal





Pre & Post Installation Costs





Savings Must Exceed Payments

- Two types of savings may be used to pay the ESCO
 1. Energy cost savings
 2. Energy-related cost savings



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From ESPC to Super ESPC



DOE ESPC Final Rule (1995)

- ☞ **Takes precedence over FAR**
 - ☞ **Allows unsolicited proposals**
 - ☞ **Specifies procurement procedures and bases for selection of ESCOs***
- ☞ ***superceded by Def. Auth 2009**



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New IDIQ

- New Super ESPC awarded December, 2008
- One list of ESCOs Worldwide



Contract Scope

New contract emphasizes renewable energy

General technology categories:

- boiler plant improvements
- chiller plant improvements
- building automation systems/energy management control systems
- HVAC
- lighting improvements



Scope: Technology Categories (cont.)

- building envelope modifications
- chilled and hot water & steam distribution systems
- electric motors and drives
- refrigeration
- distributed generation



Scope: Technology Categories (cont.)

- renewable energy systems
- energy/utility distribution systems
- water & sewer conservation systems
- electrical peak shaving/load shifting
- energy cost reduction through rate adjustments



Scope: Technology Categories (cont.)

- energy related process improvements
- commissioning
- advanced metering systems
- appliance/plug-load reductions
- Future ECMs



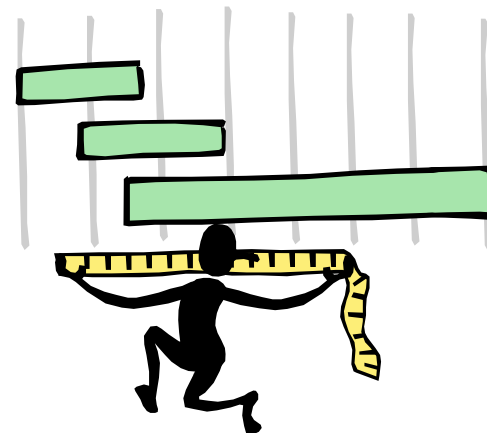
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Measurement & Verification

Core to the success of ESPC





Why Do You Need M&V?

Verifies guaranteed savings:

- 1. ESPCs are financed using avoided cost as a revenue to service debt.**
 - 2. A critical part of this financing tool is the ESCO-provided savings guarantee.**
 - 3. M&V assures the government that savings have been fully achieved before full payment is made to ESCO.**
- ❖ For a successful DO, both parties must understand and agree on the M&V strategy.**



Level of M&V

- Too little? – Agency may not have assurance or confidence that savings are real
- Too much? – Project costs increase. Can limit scope or kill project
- Just right! – Adequate for specifics of project but reasonable.



FEMP M&V Guidelines

- **For federal energy projects**
- **Step by step procedural guide**
- **Defines M&V methods by ECM type**





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FEMP Assistance

Interagency Agreements & Project Facilitation





Project Facilitation

- Technical experts
- Assure good deal for the government
- Organize process, help run meetings
- Experience with Super ESPC
- Review all proposals and contract documents
- Analyze deal from technologies to avoided costs



Interagency Agreement

- **FEMP can provide technical assistance to assure a successful ESPC.**
- To get started, FEMP provides free services without the need for an IAA.
- After the PA phase, FEMP services can be provided on a cost reimbursable basis. The IAA spells out level and cost of FEMP project facilitation.



Special Case Examples

- ***Meet your needs:*** National Gallery of Art
- ***Bundling:*** Job Corps
- ***Baseline adjustment:*** Archives
- ***Equipment guarantee:*** Colorado
- ***Can be large:*** MDW
- ***Appropriations:*** Boggs Fed Courthouse



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Overview of the Process to a Single-Source Award



Super ESPC steps

- ▶ Meet with DOE
- ▶ Preliminary Assessment
- ▶ Pick Energy Services Co
- ▶ Notice of Intent to Award
- ▶ Investment Grade Audit
- ▶ Task Order Award
- ▶ Final Design
- ▶ Installation
- ▶ Acceptance
- ▶ 1st Year Measurement & Verification (M&V)
- ▶ Annual M&V



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More ESPC Info

Super ESPC Workshops for 2009

March 3-5, Austin, Texas

April 14-16, Washington, D.C.

May 5-7, Las Vegas, Nevada

June 16-18, Denver, Colorado

July 14-16, Charlotte, North Carolina

Webcasts:

May 13 & 14: Pricing & Financing
May 21: Introduction to ESPC
May 27: Contracting & Negotiations
June 6: Alternative Financing Options
June 11: Introduction to ESPC

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GovEnergy 2009: August 9-12, 2009, Providence, Rhode Island
Info & Registration: www.govenergy.com

ESPC info on the Web:

<http://www1.eere.energy.gov/femp/financing/superespcs.html>



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